

REMARKS

Claims 1-21, as amended, remain herein. Claims 1-7, 9-16 and 18 are amended. Claims 19-21 are added. Support for amendment to the claims may be found, for example, in the specification at p. 9, lines 19-25; p. 10, lines 3-8; and p. 16, lines 19-22.

1. The abstract has been amended, mooted the objection thereto.
2. Claim 16 has been amended, mooted the rejection thereof under 35 U.S.C. § 112, second paragraph.
3. Claims 1-4 were rejected under 35 U.S.C. § 102(b) over Libres EP 0-904-923. However, Libres fails to disclose injecting the resin material in a molten state to at least part of a dummy cavity, as recited in applicants' claim 1. The Office Action alleges that pot 22 of Libres acts as a dummy cavity. One of ordinary skill in the art would understand that a "dummy" is an imitation or a copy of something else. In applicants' claim 1, the dummy cavity is an imitation or a copy of a product cavity. Although the Office Action alleges that the pot "can be any shape or size," Libres, col. 3, lines 50-52 states that the pot 22 "may be formed in any shape or size suitable for molding applications." Libres fails to disclose a pot of the same shape as the mold cavity 28. Since Libres fails to disclose such a dummy cavity, Libres is an inadequate basis for rejecting claim 1 under 35 U.S.C. § 102(b).

In addition, pot 22 of Libres cannot be an imitation or a copy of mold cavity 28 in Libres. The mold system of Libres involves transfer molding, in which molding material 60 is placed into

a pot 22. A plunger 31 presses on the molding material 60, transferring the material from the pot to the mold cavity 28. Thus, the pot 22 of Libres should have a shape that would allow a plunger 31 to transfer only the maximum amount of molding material 60 from the pot 22 to mold cavity 28 by moving down the pot 22. For example, if the pot 22 had the same trapezoidal shape as the mold cavity 28 in Fig. 1 of Libres, excess molding material would be located around the plunger 31, reducing the effectiveness of the plunger. Since modifying pot 22 to be a “dummy” of mold cavity 28 would reduce the effectiveness of the mold system in Libres, pot 22 cannot be a “dummy cavity,” as recited in applicants’ claim 1.

Libres further fails to disclose “injecting the resin material into the resin pit until the resin material fills all of the plurality of product cavities,” as recited in applicants’ claim 2. On the contrary, Libres discloses putting molding material into the pit at one time, then pushing the molding material out of the pit into mold cavity 28.

Since Libres fails to disclose every element of applicants’ claims 1 and 2, Libres is an inadequate basis for rejecting claims 1-4 under 35 U.S.C. § 102(b). Reconsideration and withdrawal of the rejection are respectfully requested.

4. Claims 5-10 were rejected under 35 U.S.C. § 103(a) over Libres and Nishimoto U.S. Patent 6,767,482. For the reasons stated above, Libres fails to disclose every element of applicants’ claim 1, from which claims 5-10 depend. Nishimoto fails to disclose what Libres lacks. Nishimoto discloses an injection molding machine having multiple product molds. Nishimoto fails to disclose injecting the resin material in a molten state to at least part of a dummy cavity, as recited in applicants’ claim 1.

Nor would it have been obvious to one of ordinary skill to modify or combine Libres and Nishimoto to have every element of applicants' claims 1 and 5-10. Neither Libres nor Nishimoto contains any disclosure that would have motivated one of ordinary skill to inject resin into a dummy mold and apply ultrasonic vibration to the dummy mold, as recited in applicants' claim 1. For the foregoing reasons, Libres and Nishimoto are inadequate grounds for rejecting applicants' claims 5-10 under 35 U.S.C. § 103(a). Reconsideration and withdrawal of the rejection are respectfully requested.

5. Claims 11-16 and 18 were rejected under 35 U.S.C. § 103(a) over Libres and Sato JP 11-262938. As discussed above regarding claim 1, Libres fails to disclose "a dummy cavity for molding a dummy product," as recited in applicants' claim 11. Sato fails to disclose what Libres lacks. Nor do Libres or Sato contain any disclosure that would have motivated one of ordinary skill to modify Libres or Sato to use a dummy cavity for molding a dummy product.

Nor would it have been obvious to one of ordinary skill to modify or combine Libres and Sato to disclose every element of applicants' claim 11. Nothing in Libres, Sato, or any other prior art of record contains any disclosure that would have motivated one of ordinary skill to use a dummy cavity for receiving ultrasonic waves.

Regarding claim 12, neither Libres nor Sato discloses "an injection apparatus for injecting a resin material into said resin pit, thereby filling the plurality of product cavities with resin via said runner." Nor do Libres and Sato disclose an ultrasonic wave application means for applying ultrasonic vibration to resin material in the resin pit, as recited in applicants' claim 12. Libres discloses a pot 22 into which molding material is inserted, then compressed by a plunger, thereby

transferring molding material from the plunger to a mold cavity. Sato discloses an injection molding apparatus vibrated by an ultrasonic vibrator, but fails to disclose that the ultrasonic vibrator vibrates a resin pit located in a runner between product molds, as recited in applicants' claim 12.

Nor would it have been obvious to one of ordinary skill to modify or combine Libres and Sato to disclose every element of applicants' claim 12. Nothing in Libres, Sato, or any other prior art of record contains any disclosure that would have motivated one of ordinary skill to provide ultrasonic wave application means for applying ultrasonic waves to resin in an injection molding machine. For the foregoing reasons, Libres and Sato are inadequate grounds for rejecting claims 11-16 and 18 under 35 U.S.C. § 103(a). Reconsideration and withdrawal of the rejection are respectfully requested.

6. Claim 17 was rejected under 35 U.S.C. § 103(a) over Libres, Sato, and Nishimoto. As discussed above, Libres and Sato fail to disclose every element of applicants' claim 11, from which claim 17 depends. Nishimoto fails to disclose what Libres and Sato lack. In particular, Nishimoto fails to disclose a dummy cavity for receiving ultrasonic waves. Nor would it have been obvious to one of ordinary skill to modify or combine Libres, Sato, and Nishimoto to disclose every element of applicants' claims 11 or 17. Nothing in Libres, Sato, Nishimoto, or any other prior art of record contains any disclosure that would have motivated one of ordinary skill to modify Libres, Sato, or Nishimoto to have a dummy cavity.

For the foregoing reasons, Libres, Sato, and Nishimoto are inadequate grounds for rejecting claim 17 under 35 U.S.C. § 103(a). Reconsideration and withdrawal of the rejection are respectfully requested.

Accordingly, all claims 1-21 are now fully in condition for allowance and a notice to that effect is respectfully requested. The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293. If further amendments would place this application in even better condition for issue, the Examiner is invited to call applicants' undersigned attorney at the number listed below.

Respectfully submitted,

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